ABSTRACT OF THE DISCLOSURE

In a substrate in which a reflection coefficient γ of a surface acoustic wave per electrode is small, the invention obtains a Q value or a CI value level, which is equivalent to or higher than that of a related art product, at a device size which is equivalent to the related art product which addresses the problem that the size of a surface acoustic wave resonator becomes larger. A surface acoustic wave resonator includes one interdigital transducer to excite a surface acoustic wave in a propagation direction x on a piezoelectric plate and a pair of reflectors arranged on both sides thereof in the propagation direction. The interdigital transducer is divided into three regions. The electrode fingers of the interdigital transducer of each region are formed at a fixed pitch which differs within 2%. The surface acoustic wave resonator possesses a single peak response. The form in which a vibration displacement envelope amplitude in the interdigital transducer region is normalized is a form which takes a maximum value 1 at the center position, which smoothly takes a value in a range of 0.33 to 0.53 at a position 1/4 from both ends, and which smoothly takes a value in a range of 0.048 to 0.177 at positions at both ends.